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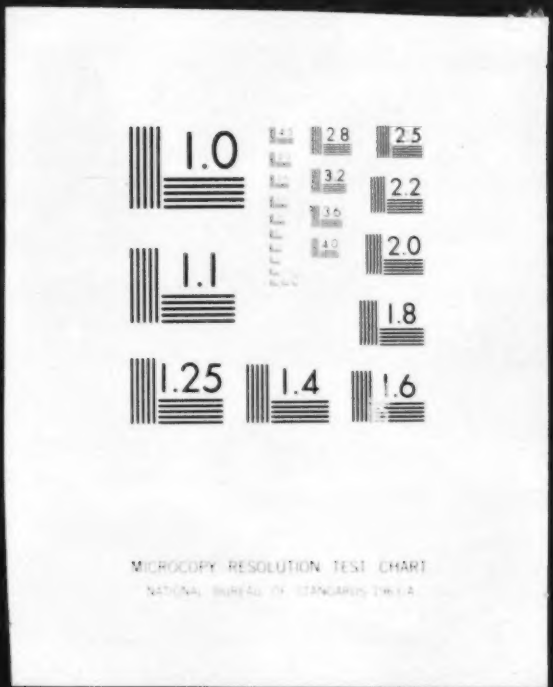
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ABSTRACT

A report of a 1980 workshop on the relevance of U.S. education to students from developing countries is presented. Sponsors were the Agency for International Development (AID) and the National Association for Foreign Student Affairs. The 80 participants included representatives from AID, professionals from the academic sector and community service organizations, and AID students and alumni. Topics were as follows: (1) an overview of the way that U.S. faculty consider the relevance of its education for students from developing countries; (2) prospects of graduate education for these foreign students; (3) programs and approaches offered at different institutions and in idfferent disciplines, including economics, education, science, and engineering; (4) the way that Brazil is trying to meet its needs through foreign and domestic education for its students; (5) the relevance of U.S. education to AID developing countries; (2) propspects of graduate education for needs; (6) plans and priorities of AID; and (7) factors at different institutions and in different disciplines, selection to reentry. The workshop resulted in proposals for improving the procedures and planning of AID participant training programs, strategies for increasing the educational relevance of programs for students from developing countries, and predictions for the future. Suggested reading materials are summarized. (SW)

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A REPORT ON THE FOURTH AID/NAFSA WORKSHOP

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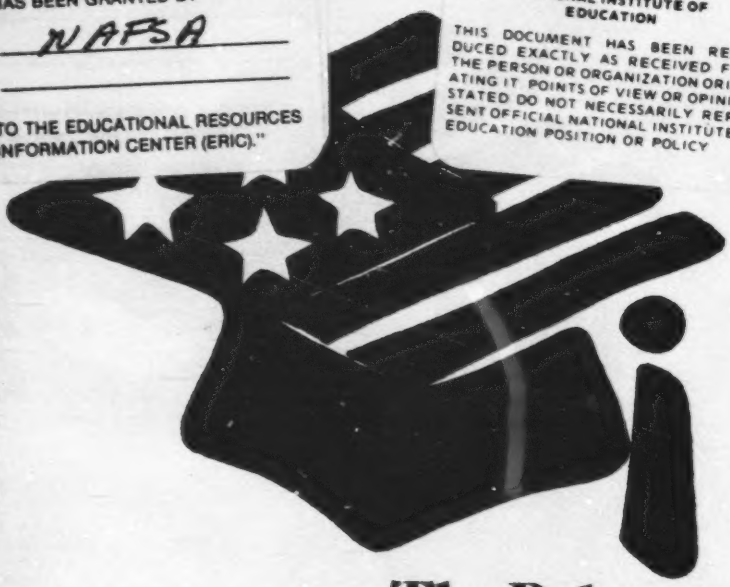

The Relevance of U.S. Education to Students from Developing Countries

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Preface

The 4th A.I.D./NAFSA Workshop has been made possible through a contract between the Office of International Training of the U.S. Agency for International Development (A.I.D.) and the National Association for Foreign Student Affairs (NAFSA). Members of the Workshop Planning Committee are:

Marvin Baron, University of California, Berkeley (chair)
Kenneth Cooper, Stanford University
Ann Helm, University of the Pacific
Meredith Minkler, University of California, Berkeley
Mary Ann Hood, The American University
Admassu Bezabeh, Bank of America

Special thanks are extended to William Elsen, Louise Jordan, and John Lippmann, Office of International Training, A.I.D., for their assistance in the planning of the workshop.

Appreciation also is extended to Mary Ann Hood, chair of local arrangements, and to Ellen Wise and her colleagues on the NAFSA staff for their supportive services in the preparation and organization of the workshop.

—The NAFSA/A.I.D. Projects Steering Committee

Acknowledgements

The writer of this report wishes to record his gratitude to Beth Morgan of the NAFSA staff for her enthusiastic and meticulous assistance in preparing the manuscript.

The writer also wishes to acknowledge his indebtedness to the plenary speakers, panelists and recorders who together provided the documents from which the report was written. Speakers and panelists were given the opportunity to review the manuscript and were invited to make suggestions or corrections to that section which described their participation.

While immensely grateful for the assistance thus received, the writer wishes to accept full responsibility for the way in which the workshop is reported. Everything of value in the report must be attributed to the contributions of the members of the workshop, any lack of clarity in interpreting these contributions must be ascribed to the writer.

—Hugh M. Jenkins, Rapporteur

Introduction

This is the report of the fourth workshop jointly conducted by the Agency for International Development through its Office of International Training and the National Association for Foreign Student Affairs.

The first two workshops, held in 1969 and 1971, were mainly devoted to a mutual exchange of information between those responsible for the administration of the A.I.D. participant training programs and members of the various professional sections of NAFSA and others concerned with the personal and academic welfare of the foreign students enrolled in their institutions. Between them, the two workshops reached a wide circle of representatives from the administrative and educational community who shared a common interest in the educational programs offered to A.I.D. participants and other foreign students by U.S. colleges and universities. In their discussions the members of these workshops defined their respective roles and functions, identified issues and problems and agreed upon a number of recommendations for the improvement of procedures and the enhancement of the educational experience of the A.I.D. participants and other foreign students.

With the third workshop, held in 1972, the emphasis of the program moved from information sharing to the examination of a specific topic. Thus the group, which was diversified by the inclusion of members of faculty, A.I.D. student participants and some cultural and educational officers from embassies in Washington, D.C., devoted their attention to the objective of the A.I.D. participant training program—that of preparing the participant for a greater contribution to the development needs of his or her country. The topic chosen was "Human Resources Development—The Foreign Student on Campus." The participants in the workshop recommended a number of innovative activities to provide more effective training for development in the U.S. and to maintain a continuing relationship with the trainees upon their return to the homeland. Emphasizing the need for cooperation between institution and sponsor, campus and community, the workshop report provided the basis for a set of models or standards in the programs offered to students from developing countries.

Meanwhile, in the years since the first workshop, collaboration between NAFSA and A.I.D. had been intensified through a contractual relationship. In this way the professional resources and national outreach of the association were harnessed for the implementation of plans and programs which were jointly determined to be in the common interest of the agency and the association. A number of institutional progams, community activities and research projects were developed to enhance the educational experience of the A.I.D. participant and involve U.S. students and members of the community in the fulfillment of the goals of the international development program.

It is therefore with the added experience gained from the experimentation and achievement of several years of cooperative activity that the

NAFSA/A.I.D. Projects Steering Committee embarked on the plans for this fourth workshop and determined to examine the question "The Relevance of U.S. Education to Students from Developing Countries."

Summary

The fourth A.I.D./NAFSA Workshop, held on March 5-7, 1980, was on the subject "The Relevance of U.S. Education to Students from Developing Countries." The results of the two days of discussions, which were the culmination of months of preparation by the Workshop Planning Committee, included proposals for improvements in the procedures and planning of the A.I.D. participant training programs, strategies for increasing the relevance of the educational programs currently offered to students from developing countries, and predictions of some basic changes in development patterns which will have far reaching effects on the relationship of the United States with developing countries.

Participants

The 80 participants in the workshop included representatives from the Agency for International Development who are directly responsible for the agency's participant training program, members of faculty who direct and determine the academic content of the programs offered by the U.S. institution, foreign student advisers who enjoy a continuing personal contact with the participants, members of the other professional sections of NAFSA (teachers of English as a second language, admissions officers and representatives of community organizations offering services and programs for foreign students), and A.I.D. students and alumni. This comprehensive representation of those involved in the education of students from developing countries gave persuasive authenticity to the comments, concerns and recommendations of the group. Against the background of the current and anticipated needs for economic and social development and within the context of the existing and potential resources of U.S. educational institutions, they noted what is desirable and identified what is feasible in the ways and means of improving the programs offered to students from developing countries. Tempered by the discernment of faculty members conscious of the constraints of institutional and disciplinary goals and commitments, enlivened by the expressed needs of those who must face the task of implementing social and economic development plans in their home countries, the workshop offered some new and challenging perspectives on the relevance of U.S. education to students from developing countries.

Participant training

As is inevitable in any review of an activity of such long standing as the A.I.D. Participant Training Program, the importance of previously identified sources of problems was re-affirmed and former recommendations were underscored. Comments in this area focused on the essential importance of communication among all those concerned with the training program from the

time of selection of the participant to the time of his or her return to the homeland.

The goals of the home country, the purpose of the development project and the needs of the participant trainee must be thoroughly explored in an exchange of information that encompasses representatives of the home government, members of the A.I.D. country mission and Office of International Training in Washington, D.C., the contract agencies, the faculty, academic and foreign student advisers on campus and the individual participant. To cover all the needed items of information, the Project Implementation Order/Participant (PIO/P) should be made more explicit and its distribution to a much wider group should be mandatory. Many of the related proposals regarding the role of the institution, the need for adequate orientation the importance of experienced and sensitive advising, and the development of an appropriate program depend on this primary requirement for a full exchange of information.

Education for development

Although the A.I.D. Participant Training Program was central to their discussions, the members of the workshop dealt with the general topic of U.S. education and developing countries' needs. The recurrent theme in the discussion of educational programs was the imperative need for practical training and other experiences which will contribute to the student's self reliance and capacity for adaptation and innovation. It is the flexibility and imagination on the part of the educational institution that can inspire and develop the ingenuity and versatility of the student. In this respect it was noted that there are many resources on campus, often ignored or inadequately exploited, which could and should be used to enhance the educational experience of the foreign student during the entire period of study in the United States. These include faculty members who have experience in developing countries, the overseas outreach of the university relationships, foreign students and alumni, and the variety of personal and professional contacts in the local community. Mobilization of all these resources is an option that is immediately available to meet the needs of students from developing countries.

Curriculum

Based on a general acceptance of the inviolability of basic core curricula, a number of ways were identified by which relevance could be achieved. The most innovative and far reaching of these was the concept of the "complementary curriculum." This involves the selection of inter-disciplinary studies, special courses and skill training in an additional program designed specifically to take into account the varying needs in different disciplines and the available resources in different countries. Other and less structured methods for providing relevance are also being developed in a number of graduate schools. These include courses which have an international content that serves together the needs of the foreign students and of U.S. students seeking a globally oriented education, the approval of research projects related to the home country and of theses on domestic problems. A review of these various approaches indicates the many ways in which, by careful advising and with a sensitive appreciation of the need for adaptability, students from developing countries are being given an education that will prepare them for careers in their homelands.

Future needs

Supplementing their review of existing needs and opportunities, the members of the workshop looked at the prospects for the next decade. It was acknowledged that trends now apparent suggest that political and economic conditions both in the developed and the developing countries may have a profound effect on their relationships which in turn will have an impact on the goals and needs of students seeking an education outside of their homelands. The concept of relevancy will take on dimensions reflecting new and more domestically oriented styles of development. It was recognized that if they are to continue to meet the educational needs of these changing circumstances in the 1980s and thus maintain their attraction for foreign students from developing countries, U.S. institutions may have to make some much more fundamental changes in their international educational activities.

Workshop Report

Panel 1: *Overview of main issues: How do U.S. faculty view the question of the relevance of our education for students from developing countries?*

Moderator:	**Mr. Marvin Baron**, adviser to foreign students and scholars, University of California, Berkeley
Panelists	**Dr. Walter Hibbard**, School of Engineering, Virginia Polytechnic Institute and State University
	Dr. Jules LaPidus, vice provost for research and dean of the graduate school, professor of medicinal chemistry, Ohio State University
	Dr. Richard Holton, School of Business Administration, University of California, Berkeley
	Dr. Harold Riley, Department of Agricultural Economics, Michigan State University
Discussants:	**Mr. John Lippmann**, chief of planning staff, Office of International Training, A.I.D.
	Mr. Thomas Bassett, director, International Services, Wayne State University
Recorder:	**Dr. Alan Warne**, executive director, Philadelphia Council for International Visitors

Examination of relevance

The response of the distinguished faculty members who contributed to the discussion of this topic revealed the complexity of the subject under review. In the first place there is some question as to the precise meaning of the word relevance as it appears in the title of the session. Precision requires some point of reference and in this respect it was noted that while the pertinent factors, namely, the goals of the developing country, the goals of the individual students and the intentions of the sponsoring agency will usually be complementary, they may be different and, in some cases, can be contradictory. Thus relevance must be seen not as an absolute but as a variable that is subject to qualification by different conditions and circumstances.

In this context it may be significant to note that the two fields of study most sought after by foreign students are engineering and business administration, although these are among the most U.S. oriented disciplines. It is reasonable to assume that these illustrate a particular national characteristic which has over the years attracted increasing numbers of foreign students, including many from the developing countries. In such a case one might raise a question concerning the extent to which a move towards more relevancy in the teaching of the subjects would not, in fact, diminish their intrinsic value so far as the foreign students are concerned.

Graduate programs

In the context of graduate education, relevance must be seen in the light of the goals and responsibilities of the institution or the discipline. These may be defined as the advancement of knowledge and the education of students up to the very frontiers of the discipline. There is a further commitment to the constituency of the institution, to learn and understand the needs of society and translate these into appropriate training. Graduate education also is focused on the individual initiative and the ability of the students to apply knowledge to their own needs through independent study and research. The extent of this individual emphasis and departmental flexibility may differ in some master's programs, which are essentially topic-oriented and the doctoral programs, which are essentially individual-oriented.

Relevance in graduate programs also will vary according to subject, ranging from the universality of pure theoretical knowledge to the narrower limits of more practically oriented disciplines. Within particular disciplines there is a further variance as some elements of the curriculum may be generally applicable, while others may be uniquely oriented to conditions and needs in the United States. It may be suggested, therefore, that achieving relevance in graduate programs is reciprocal, involving both faculty and students. In this setting it should be noted that foreign students may contribute to the international element in any discipline, bringing to the institution relevant information about their home countries and widening the perspective of the U.S. students with whom they may be working and studying.

Transferability

A critical element in the relevance of instruction is the way in which knowledge can be adapted to the needs and conditions in developing countries. Solutions and methods which may be effective in the United States may not be transferable to other countries because of fundamental differences in available resources, both human and natural, and because of the impact of social, economic and cultural patterns in the home country. There must, therefore, be an awareness of the constraints of U.S. technology designed to meet the needs of this country, and the limitations which are inherent in the conditions in the developing country. While many foreign students may come to the United States seeking quick solutions to immediate problems, the essential requirement that they need to learn is the way in which problems are solved. While problem solving is an element in many graduate courses, the foreign student must take further care to see that the development of a capability for problem solving be isolated from the influence of U.S. culture and conditioning. Only in this way can the foreign student return prepared and equipped to meet the

needs of the home country. Transferability in problem solving requires not only the knowledge of what needs to be done, but also the ability to make things happen. Irrespective of the field of study or professional training, therefore, for the foreign student from the developing country there is an almost universal need for some additional management training. Even with the most comprehensive preparation, the student returning to make changes in the home country faces a formidable task in which he or she will need all the help possible. The final ingredient in the process of transferability may be provided by mobilizing the support of those alumni in the home country who have been trained in the United States and are thus able to give sympathetic and understanding assistance.

Appropriate technology

In contrast to the arguments for and against the propriety of seeking relevance by changes in basic curricula is the development of educational programs specifically designed to meet the needs of developing countries.

Appropriate technology (as defined by Dr. Hibbard) is the technology that is relevant to solving the needs of a community considering the economy, the resources and the value judgements of that community. For developing countries it is often "intermediate" technology, meaning that which is intermediate between their traditional and existing technology and the advanced, capital-intensive technology of developed countries.

If some graduate programs can be tailored to meet this need without compromising academic standards, they can thus provide a useful preparation for the student who will be returning to a developing country. To this end there must be an understanding of the origins and objectives of the student's goals which will reflect the natural resources and development plans of the home country. In some countries these may focus on exports, in others on increasing employment in agriculture and rural industry, while others may gear their plans to respond to a current lack of transportation, capital, and skilled manpower. Similarly other countries may have as their immediate goal the technology required for the development of indigenous resources such as oil, coal, steel, etc. Programs have been designed to meet those specific needs using existing courses, making use of independent study and appropriate theses. Further suitability can be obtained by the selection of institutions in the United States which are environmentally and academically most compatible to the needs and circumstances in the developing country, e.g., in areas with similar natural resources, such as oil or coal, and in an equivalent climate zone, especially in regard to agricultural programs.

A.I.D. training programs

It is in this need for a more precise equivalency between needs and training that A.I.D. has a particular interest, for the agency not only has its own defined priorities (agriculture, health and education) but also has a special commitment to those development programs which will directly benefit the "poorest of the poor." It is these goals and purposes which must be met as effectively and rapidly as possible by the training provided in the United States.

In these circumstances, the agency determines the limits of the educational programs offered to its trainees which may be defined as training to a certain level to achieve the capacity to perform a specific task. Because of the

problems inherent in over-training, it is essential that these goals and limits be understood by both faculty and advisers who will be responsible for the educational program provided for A.I.D. students at their institutions. For some faculty members there is conflict between this concept of limited education for training needs and their own more expansive interpretation of the purposes of education.

Precautions and procedures

Because of the complex problems involved in meeting the needs of students from the developing countries and the wide variety of educational resources available in the United States, there is a need for a clear definition by the institution of the nature of its educational programs. Prior to making application to the university, this information must be carefully evaluated by the foreign student and the sponsoring agency to ensure that there is matching of the needs and goals of the student and the courses available at the institution. Following admission, the foreign student must be encouraged to take some initiative and play an active role in determining the direction of his or her course of study in the United States, and subsequently in the use of the acquired knowledge upon return to the homeland

In many developing countries the weight of traditional restraints and deferrence to academic authority mitigate against the foreign student being sufficiently assertive in his or her relationship with the professor. Thus there is a need for advisers who can assist the student in overcoming this tendency to an unquestioning acceptance of authority. Such assistance can be provided most effectively by faculty advisers who, through personal experience, are familiar with the customs and cultures of the student's homeland. Such expert advice gained from personal experience is a diminishing resource as fewer young faculty members engage in overseas projects, mainly because the existing rewards system offers no encouragement for this kind of activity.

High costs, diminishing resources

The provision of a relevant education for foreign students from developing countries is encumbered by a number of problems, most of which are more or less directly related to budgetary limitations. In general, in the decreasing financial resources of educational institutions, the priorities will be for those programs and activities that benefit the primary consitituency of the university, the U.S. students. In general, too, there is a continuing inflation in all education costs. In these circumstances few funds will be allocated to meet the extra expense which is involved in tailoring programs to meet special needs. Individual funding also tends to be available only for research that is related to U.S. needs, thus the graduate foreign student seeking such support is tempted to become involved in research projects which have no relationship to conditions in the homeland. It is against this background of high costs and decreasing resources that there is some urgency to ensure that optimum use is made of available funds. Thus special attention must be given to the selection of students who are adequately prepared and need no additional training in the U.S. to bring them to the threshold of graduate study. Proficiency in the English language is also an important factor in the success and cost of the educational program in the United States. Despite the recognition of the need for relevancy, and the desirability of overseas field work and research in the

home country, the added cost involved imposes an automatic limit to the provision of these special opportunities.

An examination of results: agricultural economics

A recent study in the field of agricultural economics provides significant information on the relevance of education in this field provided to students from developing countries. (See preliminary report: *Training Agricultural Economists to Serve the Needs of a Changing World.* Darrell F. Fienup and Harold M. Riley. Michigan State University, 1979) In a resume of this report, it was noted that of a total of 9,600 graduate students entering M.S. and Ph.D. programs in some 50 U.S. departments of agricultural economics between 1969 and 1978, some thirty percent (2,900) came from lesser developed countries. The significant need for relevance in the U.S. training of this group is emphasized by the fact that agricultural economics is a very new profession in the majority of the developing countries. It has also been emphasized because there has been an increase in the demand for M.S. level training from Africa and the Middle East, where local training capabilities are very limited. The objectives of the study included an evaluation of their U.S. course work, thesis research, language training, and program guidance. The basic source of information comes from 653 agricultural economists, representing 79 countries, who studied in U.S. universities over the past 15 years. Of these, most are working in the jobs for which they were trained and the vast majority (80 percent) are still living and working in their regions of origin.

The responses of this group thus provide an important insight on the relevance of their U.S. training as preparation for their work in the home country.

Included in the findings of the report were the following items which relate particularly to the topic under discussion at the workshop:

- Respondents found most valuable courses in economic theory and quantitative methods, and least useful courses in agricultural policy, trade and trade policy, land and resource economics, agribusiness, history of economic thought and comparative economic systems—courses which tend to be highly oriented to U.S. and developed country institutions and situations.
- Of those who wrote master's theses, the majority (90 percent) felt that it had been more useful, or just as useful, as course work in their training programs. Experience in the application of theory and quantitative techniques in problem analysis was considered extremely valuable.
- It was noted that a weakness in the training program derived from lack of faculty perception of and application to LDC problems, and the need to "bridge the gap" between theory and application. Thus training programs could be improved if more professors had real knowledge of and experience in LDCs, especially for student advising. Noting that the demand for agricultural economists continues to exceed LDC training capabilities some ways were suggested to strengthen the profession in these countries:
- by joint degree offerings between universities in the LDC's and the United States,
- by shared thesis advising from professors in U.S. and LDC universities,

— by joint research projects,
— by sabbatical-type opportunities for LDC professionals to upgrade professional skills, and
— by both short-term and long-term assignments of professionals from developed countries in LDC universities.

It will be seen from this very brief summary of the comprehensive and detailed report that the findings in one particular discipline served to underscore, in particular, some aspects of the question of relevance which were presented in the discussions of this topic. Editor's note: This resume uses the language of the report and thus refers to lesser developed countries (LDC's) which elsewhere in the report are referred to as "developing countries."

Plenary: *Relevance and development style: An analysis of the prospects of graduate education for students from developing countries in the eighties*

Speaker: **Dr. Edmundo Fuenzalida,** School of Education, Stanford University

Recorder: **Ms. Beathe von Allmen,** adviser to international students and scholars, University of Southern California

Introduction

Despite many convincing arguments that graduate education in the United States does not offer the most appropriate preparation to enable students from developing countries to meet the needs of their homeland, the fact remains that every year large numbers of these students continue to come to this country to pursue their graduate studies. It is by examining the reasons for this continuing flow that one may find a relationship between the relevance of the educational program offered in the United States and the style of development that exists in the home country. Projecting this examination into the future, it may be possible to ascertain whether these reasons will still be valid in the next decade. On the basis of such an analysis one may then discuss the kind of graduate education that will be needed in the U.S. to continue attracting students from developing countries. The examination of relevance and styles of development may be divided into three sections:

1. The historical relevance of graduate studies in the U.S. for students from developing countries.
2. Their probable irrelevance in the coming decade.
3. What should be done to make them relevant to a changing world.

Historical relevance

The reason why so many students from developing countries have come to the United States for an education that is clearly geared to the needs of the economic dynamism of this country may be found in the style of economic and social development that has emerged in the non-socialist world in the years following the second world war. This "development style" is based on the assumption that domestic forces in non-industrial countries will never be able to bring about 'development' to their societies because of the force of tradition. An external agent can bring about growth and diversity—an artful combination of capital, technology, organization, and labor—namely, the contemporary big corporation.

To perform effectively this external agent requires certain basic economic and political conditions and, with these assured, a predetermined plan for the proper exploitation of the developing country's particular natural resources. To carry out this plan the state and the big corporation collaborate on a project to develop the productive activities in one particular area, using the financial support of the

developed countries or of international organizations. It is this 'development project' which provides the link between the external agent and the development plan.

This style of development has been historically endorsed by the several finanacial international organizations, i.e., International Monetary Fund, the World Bank, and other regional banks, and by governments of developed countries. This may be called the "transnational" style of development. Since there is no way to educate people in the home country in the many disciplines required for the management of the transnational development plan, governments of developing countries have to look abroad for opportunities for study. The United States, obviously, was the developed country which could offer educational facilities at the graduate level. After two decades of development, the number of students from developing countries increases.

In summary, graduate education at U.S. institutions has been historically relevant for students from developing countries. The reason for this is that these countries embarked on the style of development that made such education essential. This relevance will continue as long as these countries frame their development efforts in the transnational style.

Probable irrelevance in the coming decade

Two examples may illustrate the factors which may affect the flow of students to the United States—Iran and The People's Republic of China. Because of the historical relevance outlined above, Iran currently has the largest national group of students in the United States. However, in the future the new government of Iran will need to show its supporters, inside Iran, that their students will not be converted to "Americans" during their education and that their program of studies will consider the peculiar conditions of Iran. If the government cannot establish these guarantees, the sending of Iranians to the U.S. for graduate study at the previous level is not likely to continue.

Although it is difficult to predict the political course of events in the People's Republic of China, at this time an ambitious program of modernization is being launched particularly in the areas of science and technology. This has led to the beginning of a flow of PRC students to the United States. However, the present leadership will have to convince their internal critics that a U.S. educational experience will not decrease the revolutionary fervor of the students, and that the students will acquire knowledge and expertise appropriate to Chinese conditions.

What the two examples just given clearly show is that, in spite of the crisis of the transnational style of development, it still has a great appeal to the developing nations of the world. This appeal may be translated into a stream of graduate students to the U.S. But this situation is very different from the uncritical acceptance of the transnational style of development as the only road to development, or its outright rejection as the capitalist road to development.

In previous decades, U.S. graduate educators did not have to worry about the appropriateness of their programs for foreign students from developing countries, because their sponsors had unshaken faith in the transnational style of development and wanted them to get exactly what was offered to U.S. students (or they did not even think of sending students to the United States). In the '80s the sponsors will scrutinize carefully the offerings for relevance, because of a much more sophisticated understanding of the difficulties of development, and a much more complex and ambiguous political situation, both

internally and internationally. Therefore, if the institutions of graduate education in the U.S. want to maintain, or increase, the flow of foreign students from the developing countries, they will have to revise their offerings with an eye to the suitability of them to the needs of the different developing countries.

For a number of reasons, financial, political, and intellectual, the U.S. institutions cannot afford to ignore foreign students coming from developing areas. By receiving these students in their graduate schools, U.S. institutions also can keep track of the successes and failures of programs in develcping nations.

Possibilities for future relevance

Over the last two decades, U.S. institutions of graduate education have acquired a set of valuable elements that may be mobilized to cope with new circumstances. There are alumni scattered over the developing world who have firsthand experience with the crisis of the transnational style of development and could offer alternative ways of doing things. Also, there is the experience gained by faculties in their day-to-day contact with students from developing countries.

To make U.S. education adequate to the new needs of developing countries some general directives may be appropriate for U.S. graduate educational institutions:

- The curricula should *not* be changed in the initial steps. In spite of increasing importance of the students from developing countries in their programs, U.S. graduate institutions have prime responsibility towards the future employers of their graduates in this country.
- A complementary curricula should be made compulsory. Students should be asked to learn about historical roots of underdevelopment and the structural characteristics of developing countries in attempting to develop according to the transnational style of development during last two decades, focusing on the contributions of the discipline or disciplines they are studying.
- The complementary curricula should be developed for each of the major fields of development-related disciplines, and for each major region of the developing world. This would be the responsibility of the U.S. graduate schools with optimal use of resources accumulated over the years.
- The complementary curricula should be shared with graduate education institutions who receive students from developing countries.
- The actual formulation of the main curriculum should begin at each of the institutions, according to their respective clientele.

Model program

The directives for the framing of a relevant program are, of necessity, general, in order to cover a wide diversity of disciplines and regions of the developing world. A model program demonstrating how these directives could be implemented in one specific discipline is currently being developed and a proposal, in draft form, for a special summer program for graduate students in science from the developing countries is under consideration by the International Development Education Committee of the Stanford University School of Education (SIDEC).

The aims of this program (details of which may be obtained from Dr. Fuenzalida) are:

- To made a group of science students from the developing countries aware of the real conditions in which they will have to do research when they return to their home countries.
- To provide them with some intellectual and practical tools to cope with the many non-scientific problems they will encounter.
- To draft a proposal of complementary curriculum, for graduate science students from the developing countries studying in U.S. or Canadian universities, based on the experience gained while attempting to do "a" and "b".
- To identify those aspects of the socio-political environment of scientific research in developing countries about which there is still insufficient knowledge yet which are crucial for a healthy growth of science in these countries. This aim includes suggesting ways to gain that knowledge so that it can be fed into first aim on this list.

This program, which it is hoped may be scheduled for the summer of 1981, should offer a practical experience of ways in which U.S. graduate education can meet the needs of a new era of development.

Panel II: *Goals and realities: Can U.S. universities offer appropriate education to students from developing countries?*

Moderator:	**Dr. Kenneth Cooper**, academic coordinator, Bechtel International Center, Stanford University
Panelists:	**Dr. James S. Worley**, director, Graduate Program in Economic Development, Vanderbilt University
	Dr. Edmundo Fuenzalida, School of Education, Stanford University
	Dr. Leo Peters, College of Engineering, Iowa State University
	Dr. Michael Moravscik, Department of Physics, Institute of Theoretical Science, University of Oregon
Discussants:	**Ms. Rosemary Walker**, Volunteers for International Awareness
	Dr. Pratomo Hadi, master's candidate in Public Health, Tulane University (Indonesia)
Recorder:	**Ms. Peggy Pusch**, executive director, Intercultural Network, Inc.

Introduction

The panel discussing this question provided answers in the context of specific programs and approaches offered both in different institutions and in different disciplines. In his introduction of the topic, Dr. Kenneth Cooper noted the possible significance underlying the use of the related terms "developing" and "developed,*" with the implication that countries categorized as "developing" are in the process of becoming like those which are "developed." He suggested that a more appropriate title to distinguish the countries that are the focal point of the workshop is "Third World." Implicit in this title is a recognition of the fact that the changes sought after should not be designed to replicate existing conditions in the developed countries, or be based solely on such traditional measurements as economic and industrial growth, and rising rates of GNP. Rather, the changes should be related to the more basic questions of social equity and the preservation of the support system upon which the survival and welfare of present and future populations depend.

Overview

In an overall review of the relevance of U.S. education to students from developing countries, there must be some identification of goals:

Goals of the student:

— increased knowledge in his academic field of interest, knowledge that will be applicable in home country;

*Note: Although recognizing the significance of Dr. Cooper's comments, in order to maintain some uniformity, the current title "developing countries" is used throughout this report.

— marketability (a job);
— intercultural exposure.

Goals of A.I.D.:
— development leading to self-reliance of developing countries, including rural development and improving the conditions of the "poorest of the poor;"
— improvement of communications and understanding between U.S. and developing countries.

Goals of the foreign country:
— greater self-reliance—development of endogenous technology and expertise for both industrial and agricultural development;
— reduction of demographic problems of population growth and rural/urban migration;
— greater equity in exchange values between primary and finished products.

Goals of the U.S. university:
— disseminating latest knowledge;
— improving marketability of its products;
— engaging in research and teaching that: (1) is at the forefront of U.S. education, and (2) will drew in operating funds.

Reflecting on these various goals, it was noted that the common factor for the foreign student, A.I.D. and the foreign country—the development of greater self-reliance for developing nations—is not apparent in the educational framework of U.S. universities. In addressing the question of how this element can be introduced into the U.S. university, both current experience and on-going efforts were examined.

Economics

Describing the Graduate Program in Economic Development at Vanderbilt University, Dr. James S. Worley prefaced his remarks by noting that, in order to achieve relevancy, it is not necessary, nor may it be most beneficial, to create a new set of courses designed exclusively for students from developing countries. In the field of economics, relevancy may now be effectively achieved by courses which simultaneously meet the needs of students from developing countries and those of U.S. students who are interested in world economic problems. Thus while the *program* at Vanderbilt University is limited to students from developing countries, the *courses* are not so restricted; the core courses are open to U.S. students, and students from developing countries are not required to limit their studies to these core courses.

Because the feasibility of a special program depends upon the existence of a critical mass, the development of such a program that will meet both the particular needs of foreign students and the global interests of U.S. students, will greatly increase its viability, even at those institutions where there are relatively few foreign students.

The fact that such a program may be constructed to serve foreign students from diverse geographic areas further increases the possibility of accumulating sufficient students to justify the program. This broad outreach may be obtained through internationalization of existing courses. Such internationalization, and the collateral sensitivity to the influence of other cultures on the applicability of knowledge, can best be obtained by seeking faculty who have had experience in and maintain their contact with other cultures.

An essential element in providing such special programs is the teaching of self-reliance. Thus, in the classroom relevant training is adaptive training, teaching those concepts and processes that can be adapted for use in specific situations. Self-reliance itself, however, is not taught solely in the classroom. For both U.S. and foreign students teaching can be significantly reinforced in a number of ways: by providing situations where students can learn from each other, or where student/faculty discussions can be encouraged; through the independent research required on an M.A. thesis; through guest lecture series, using former foreign students who have returned from their home countries; and through field experiences. Finally, self-reliance and relevance can be further sustained by continuing contacts after the student has returned home. At Vanderbilt University these are maintained through a regular newsletter to foreign alumni, the distribution of an annual roster of current addresses, and the annual publication of a current bibliography.

Education

Dr. Edmundo Fuenzalida reported that the School of Education at Stanford University employs a number of mechanisms to meet the needs of students from the developing countries. He indicated that this should not be considered an ideal, but rather a progress report on what is now being done. He noted that the basic purpose of all these efforts is to focus the attention of the students upon their homelands.

The School of Education of Stanford University employs the following mechanisms to meet the needs of students from developing countries:

- A committee of the faculty runs a special program on international development education, which offers degrees at the Masters and Doctoral levels. The curriculum is designed keeping in mind particularly, even if not exclusively, the educational problems of developing countries.
- The faculty for this special program is recruited among qualified people who have had extensive work experience in the developing countries. At present, one of the three full-time faculty members is himself a national of a developing country.
- The school has created a position of assistant to the dean of foreign student affairs, whose main responsibility is to serve as a channel of communication between the students and the faculty. This position has been filled with a student from the developing world, who has organized conferences with the students and faculty with the stated purpose of collecting their reactions to the course offerings. The assistant to the dean is, at present, in the process of surveying the international interests and experiences of the faculty at large, in order to match their competencies with the needs of the students from overseas, especially in terms of advising.
- The special program on international development education organizes the work of the students at the masters level around a core sequence of seminars, stretching over the four quarters of required residence. The students are required to define an educational problem, in their home country, at the beginning of the sequence and to reformulate it again and again as they progress along, incorporating the benefit of the new focus brought by each stage. The focus moves from the political context to the

methodological challenges of the problem concerned and concludes with a consideration of the implementation difficulties.

- As far as the Ph.D. students are concerned, they are encouraged to take advantage of the so called "B" option, according to which the oral examination is conducted on the dissertation proposal and not on the final dissertation. This is done in order to allow them to conduct their research in their own country, without having to return to Stanford to defend the final dissertation.

Commenting on this approach, it was noted that programs developed only for students from developing countries create a "ghetto mentality" and are based on the false assumption that problems of "developed" and "developing" countries are unrelated. All students can be in the same programs which are complemented by special courses to provide a global perspective.

By emphasizing the interdependence of both problems and solutions, further exploration is possible in the internationalization of curricula at the graduate level, for example, by noting the relevance of developing countries' problems to the United States with the possibility that the solutions may be complementary.

Science

Dr. Michael Moravscik of the Institute of Theoretical Science at the University of Oregon outlined both problems and solutions which are encountered in meeting the needs of science students from the developing countries.

The selection and admission of students for graduate education is complicated by the fact that the evaluation of formal supporting material (transcripts, course lists, grades, and letters of recommendation) requires a thorough knowledge of the college and faculty members that is generally not available to the U.S. institution. U.S.-based written examinations (such as GRE and TOEFL), which may, in any case, be inappropriate for assessing the potential value of a student from a different culture and educational system, are often not available because of geographic distance and fee. The solution would appear to be in the extension of oral interviewing techniques, which so far have been used in only one discipline (physics) and only primarily in Asian countries.

In the natural sciences, the U.S. educational system, with its emphasis on problem solving, and its broad base focusing on a wide variety of scientific activities, offers one of the best (if not the best) preparations. In addition to the problems which are universal to all foreign students (culture shock, climate, food, etc.), there are, however, a number of deficiencies which are special to science students from the developing countries.

Three of these deficiencies are connected with the student's past and present activities or requirements:

- The student is overspecialized and weak in problem solving. Students from developing countries are likely to have received a science education which channeled them too early into a narrow speciality and which depended on "rote learning," neglecting problem solving, thus producing graduates who are non-functional in scientific research and par-

ticularly in the multidisciplinary problems of applied scientific research. The remedy is the early appointment of a strong and sympathetic adviser who will be congenially insistent that the student does not hurry into advanced material until he has filled the gap in more elementary science and thus is able to meet the requirements of the U.S. educational system.

- The student is not used to spontaneous interaction with faculty. In most universities in the developing countries interaction between faculty and students outside the classroom is formal and limited, providing little or no opportunity for the discussion of personal or professional problems or those aspects of science which are not taught in the curricula. The remedy in the U.S. lies with the advisers who should take a rather aggressive initative to contact the student to arrange regular and possibly informal meetings and thus break down the student's acquired reluctance to approach faculty members to discuss problems and other concerns relating to their educational programs.
- The student often lacks practical experience in his discipline, having for the most part been limited to the abstract aspects of science education. The remedy is the provision of generous opportunities for the student to take creative laboratory courses, serve as an assistant, and work between academic years, perferably doing applied scientific research.

Other special needs are connected with the future of the student and relate to conditions and needs in the home country.

- In his career the student will need a greater degree of breadth and inventiveness than his American counterpart. With limited scientific manpower and a huge variety of problems to be attacked, a developing country can less afford exclusively specialized scientists. Lacking a well-serviced scientific infrastructure, each needs to be more creative, more inventive, and more independent. The remedy is the provision in the U.S. of a broader education that will encourage and test the student's inventiveness and independence.
- At the outset of his career in the home country the student will face a dual responsibility of (a) doing science, and (b) creating the circumstances in which science can be done. He will therefore need an awareness of the infrastructural elements of science, and need to know how to organize a workshop, how to carry out some of the simple workshop tasks, how a library operates, and how universities function. He also will need to know about funding, policy making, and the activities of the worldwide scientific community. The remedy is an exposure to these various elements through special departmental arrangements, and centralized summer workshops and seminars organized for foreign students from many universities.
- His major problem upon return home will be isolation, and the lack of personal contacts within the world-wide scientific community. To remedy this the adviser should take special steps to make the student aware of these needs and to ensure that the student is given opportunties to visit other institutions, attend conferences, and meet visiting scientists at his university.

Subsequent to his return to the homeland, additional measures may be taken to offset isolation. These include special summer fellowships (Canada is currently providing such programs for foreign student alumni), the development of bilateral links between research groups in the United States and counterparts in the developing country, and the maintenance of contact by individual faculty members at U.S. institutions with their former students now in developing countries.

Engineering

Dr. Leo Peters, of the College of Engineering, Iowa State University, began his report by noting that while the opportunity to provide an appropriate education in engineering to students from developing countries does exist, such provision is inhibited by the lack of faculty in the graduate programs who are familiar with the particular needs and goals of these students. Emphasizing that the focus of his presentation was on undergraduate education in mechanical engineering, Dr. Peters listed those factors which relate to the provision of an appropriate education:

- Engineering education has become more science-oriented than engineering-oriented.
- High technology is relied on in many areas, e.g. highly theoretical mathematics, interactive computing, etc.
- There is a widening gap between the needs of major employers (which tend to be very sophisticated) and small companies (which tend to be more elementary). This gap also relates to the needs to be faced by most students from developing countries.
- Good engineers are hard to get and keep on faculties.
- Those engineers who remain in the educational field are in many cases strongly encouraged to do research rather than teaching and advising, the latter being an additional responsibility which does not count in the rewards system.

With this background, it must be noted that the major objectives in engineering education for students from developing countries are:

— to prepare the student to work with available technology,
— to prepare the student to upgrade the environment appropriately,
— to prepare the student to educate others and to "sell ideas,"
— to prepare the student, as one of the few educated people in the area, to go into management, government or whatever other kind of implementation activity may be required.

At Iowa State University one finds the following:

- A specifically outlined curriculum with approximately 12-15 percent of the courses as technical electives. (This is the same proportion as social/humanisitic electives.)
- Recognition that the adviser has a crucial role in assisting the student to shape curriculum to fit perceived goals and needs.
- In many cases the student has to be persuaded that his goals, e.g. becoming a computer expert or an expert on higher mathemathics, are not appropriate for the area where the student will be going to work.
- The International Educational Services Office, which includes the Foreign Student Adviser, offers very important assistance to the academic adviser.

- Students are encouraged to get into practical training programs, although there is a major problem in finding employers.

In summarizing his observations, Dr. Peters pointed out that questions have been raised as to the relevancy of education provided in the home countries and the importance of this education in the eyes of foreign faculty. So far as U.S. education is concerned, he urged a careful examination of institutitonal offerings in relation to the needs of the foreign student, noting specifically that, dependent upon their preparation, foreign students may need more than the four years to complete a "four year" curriculum. Finally, he noted that in many cases, the problems described above regarding the gap caused by the increasing trend toward high technology, apply equally to domestic and foreign students, and he predicted that there will be little progress in the development of programs designed specifically to meet international needs, until there is a change in the availability of funds and faculty needed for this purpose.

Interdisciplinary programs

Dr. Kenneth Cooper described the E.D.G.E. Program (Ethics of Development in a Global Environment) which is offered at Stanford University. Some 35 faculty from about 15 academic departments and over 300 students (both American and foreign) participate in this year-long course. Students can register for course credit under a variety of categories: engineering, political science, education, anthropology, and social thought.

The purpose of the E.D.G.E. Program is to find new ways of comprehending the increasing complexity of society. It recognizes the limitations of a single discipline-oriented approach and the dangers of seeking solutions to problems either from an ethocentric point of view or from what may be termed a tempocentric point of view which, respectively, may bring exploitation of people and environment. To this end, the program stresses the need for students to examine the basic goals and purposes of development and the human problems which may be involved, and accept responsibility for seeking solutions to these problems.

The multi-discipline faculty offers a series of lectures and workshops that progress through a three-quarter sequence. These include, in the autumn quarter, the building blocks of international development presented in a global context (population, resources, technology, living standards); in the winter quarter, alternative models of development (capitalist, socialist, autocratic, democratic, centralized, decentralized); in the spring quarter, the study of social change, and the role of the individual (engineer, economist, political scientist) in the development process.

The E.D.G.E. Program attempts to offer students (and faculty) the opportunity to take a holistic, systems approach to development—to see the total context within which any and all development must take place.

Summary

In the summation provided by Dr. Cooper, by the responses made by the assigned discussants and the commentary from workshop participants, a number of points were raised both about the process and the purpose of education for development, which must encompass both U.S. students and students from developing countries.

A recurrent theme was the need for imaginative flexibility in planning courses to provide experiences, both inside and outside the classroom, which will offer practical training and the opportunity for foreign students to make their own contribution to the educational process. It was noted that in training for development, there is a need for selectivity both in the foreign students, who must be properly motivated, and in the faculty, who must be knowledgeable in and sensitive to the intercultural and international aspects of their discipline. Even when there is an emphasis on the problems faced by the students from the developing countries, it was recognized that these problems and their solutions will be affected by and will affect the developed countries where they are studying. Thus, to a great extent, training for development is reciprocal and relevant to the needs of both U.S. students and students from the developing countries.

Looking to the future and exploring the ways in which U.S. universities can offer appropriate education to students from developing countries, Dr. Cooper suggested that:

- Changes in U.S. education for foreign students should not be limited to techniques. They should challenge the very goals and structures of a development style that has failed.
- U.S. students must be exposed to the impact that U.S. development has on other countries. They must understand the need to change U.S. development in order for developing countries to change theirs.
- There is, therefore, a need for change in U.S. education that will engage both foreign and U.S. students in basic questioning of conventional-transnational approaches to development.

Plenary: *Perspective from a Developing Country: How Brazil is Trying to Meet its Needs Through Education—Domestic and Foreign.*

Speaker: **Dr. Claudio Castro**, Director General, Coordenacao do Aperfeicoamento de Passoal do Nivel Superior (CAPES), Brazil

Recorder: **Dr. Marvin Durham**, Foreign Student Adviser, Oregon State University

In order to understand the Brazilian experience in the training of high level manpower abroad, it is first necessary to comprehend the needs and peculiarities of the country, which provide the rationale for its study abroad program. As a case study, Brazil illustrates the broader universe of training problems, but as a sample it should not be taken as a basis for further generalization.

Needs and strategies

At this time Brazil is in the process of catching up, recovering from past deficiencies in the field of education. Reflecting conditions within Brazilian society, there is a great diversity in Brazilian education. Side by side may be found the miseries of educational backwardness and a good tradition of scholarships; together with dramatic lags in basic education, Brazil has an alert, diligent and productive intellectual elite.

Two characteristics are apparent. Even during the periods of strictest military rule, the government has recruited the most powerful and best trained minds. Some observers have claimed that such policies have diminished the tension between the establishment and the intellecutal left. The very fast economic growth of the past thirty years has made possible the absorption of trained manpower with ample room for employment in positions of responsibility. Thus, Brazil has never suffered from what is known as the "brain drain," not only because of available opportunity, but also due to an aggressive effort to develop Brazilian science. In economics, for example, the number of Ph.D.'s grew from almost zero in 1970 to over 100 today; presently in Brazil, there are also about thirteen Master's programs and three Doctoral programs in this field. Today, in total, 36,608 graduate students attend some 985 programs in almost all areas of knowledge; there is, however, a marked difference in the quality of the programs offered and, in addition, very large differences between areas of knowledge. Although such progress could never be achieved simply by government orders, it owes much to an aggressive, if somewhat volatile, government policy which includes both incentives and financial support.

The overall policies include (1) grants offered on a project basis (2) incentives to graduate diplomas built into the teaching career, and (3) two large fellowship programs, in addition to area programs.

The largest national fellowship program is CAPES (Coordenacao do Aperfeicoamento de Passoal do Nivel Superior), which currently sponsors about 6,862 students in Brazilian Master programs and some 1,480 students in Doctoral programs.

Study abroad

Foreign training is progressively being replaced by domestic programs as these become more numerous and more mature. Present reasons for training abroad are (1) to secure quality that may be lacking in some domestic programs (2) to avoid inbreeding, and (3) to cater to special needs and areas in which domestic programs do not exist, are numerically insufficient, or would not be justified.

The emphasis in study abroad is on the highest level of training (almost all fellowship holders are in doctoral programs) and on the strictest selection criteria. Study abroad is reserved for top candidates and is expected to be of the best available quality. Fellowship holders are encouraged to take as long as necessary in order to complete their programs abroad and thus return fully qualified to add variety and diversity to the Brazilian educational resources.

CAPES' grantees are paid travel, tuition and fees, and a monthly allowance adjusted for the cost of living of the geographical area in which they live. Spouses and children receive extra pay. Those who keep their faculty salaries have their allowance reduced (less than proportionately).

Selection of candidates

All areas of knowledge are addressed by CAPES fellowships. The greatest challenge in the administration of study abroad programs is choosing the right person. Seeking to supplement the limited usefulness of the application form, CAPES is using outside consultants to evaluate applications from their own disciplines. Factors in the selection process also include provision of samples of academic work, personal interviews, and review by a second group of outside referees. Letters of reference are not given high priority and, to ensure their greater validity, it was made known that references which provide accurate judgements of potential talent would acquire greater leverage. To ensure the widest selection, CAPES is considering a more aggressive recruitment policy and, to improve screening, is contemplating the use of aptitude tests.

It is recognized that selection policies at this time are not necessarily concerned with concepts of social justice and the redistribution of educational opportunities; they are designed to identify the best qualified candidates, on the presumption that the other desirable goals will follow naturally.

Selection of country

During the past two decades considerably more than half the Brazilian students abroad went to the United States. At this time, therefore, there is a deliberate attempt to provide greater diversity and introduce a variety in the choice of countries.

There are a number of factors which may discourage the selection of the United States. An important consideration is the rigidity of the requirements of the U.S. institution for Ph.D. candidates and the lack of appropriate recognition of the Brazilian Master's degree. U.S. institutions are far less flexible, for example, than British or French universities, and the consequent period of study is much longer in the United States. Another problem stems from the fact that students from lesser developed countries will find the U.S. university laboratories over-equipped and too affluent. Thus graduates from U.S. institutions return accustomed to resources and equipment which are not available in the home country. Also, as far as Brazil is concerned, there is a

much greater cultural affinity with Europe; the American life style, especially on small town campuses, does not have much attraction for Brazilian students.

Having noted these factors, it must be recognized that from the point of view of the training agency, the United States is by far the best country to work with. Well structured programs, easy access to information, competitive grading systems, and honest personal evaluations together offer an easy and reliable means of monitoring the performance of grantees, a critical factor when decisions must be taken regarding the renewal of fellowships.

Adjustment and orientation

Although the applicants for fellowships abroad tend to be more mature and thus can cope more effectively with problems of adjustment to life and study in a foreign country, cultural shock, logistical difficulties, and other time-wasting problems are sufficient to merit special attention. Unfortunately, orientation programs provided for foreign students in the United States are often seen to be designed more for indoctrination than orientation, focusing too much on the interpretation of U.S. ideals and too little on the practical problems of adjustment. The ample services provided by many foreign student adviser's offices make life easier for the foreign student, but of more critical importance is effective academic advising, especially during the initial period of study. Adjustment also may be affected by the makeup of the foreign student population at the institution. The absence of fellow countrymen may well intimidate the foreign student upon arrival on campus, but the presence of too many colleagues from the homeland may lead to the creation of a small "ghetto" in which the foreign students are isolated from the American environment, even to the extent that they may return home without ever having acquired fluency in the English language.

Selection of school

Second only to the selection of students, the choice of a school is one of the most important and difficult in training abroad. Because students often resent any infringements of their right to choose a school, it is the policy of CAPES to take an advisory rather than a primary role in the placement of scholarship students.

Experience shows that the appropriate choice varies with the area of study. In such disciplines as mathematics, physics, and economics, candidates almost always make wise choices and have no problem in the application and admissions process. Problems are sometimes encountered when students are unduly influenced by the previous experience of friends and professors and in those newer disciplines where they have no basis for selection. In all these circumstances the most effective policy for the training agency is one of flexibility, seeking to offer guidance at an early stage before the student has made any commitment, allowing students the right to make their own choices but pointing out that selection of an appropriate institution is one of the factors that affect scholarship evaluations.

The problem of selecting an institution in the United States is particularly difficult because of the number of available choices. Current experience of placement agencies in the United States has not proved satisfactory; Brazilian consultants tend to be somewhat parochial. In an effort to solve the problem of

selection, the training agency is exploring two possibilities: collection and use of peer reviews and the services of consultants in the host country.

Relevancy

Selection of the school is also crucial, because it relates to the relevancy of the education program. Thus, among the important criteria for selection will be the sophistication of the program and the availability of effective academic advising. Special attention is given to the area of research and the topic selected for thesis, as these are seen to be vitally important in the transition to professional life. The end result sought by the training agency is that the participants acquire not only the tools of their trade, but an understanding of how and where they may be applied upon their return to the homeland.

Panel III: *A.I.D. students and alumni look at U.S. education and the question of relevance to their professional needs and the needs of their countries.*

Moderator: **Dr. Admassu Bezabeh**, associate economist, Bank of America; received Ph.D. from University of California, Berkeley in Business Administration (Ethiopia)

Panelists: **Mr. Brahim Trabelsi**, master's candidate in agricultural economics, University of Kentucky (Tunisia)

Dr. Alam Payind, research associate in education and director, International Center, Indiana University; received Ph.D. from Indiana University in Political Science and Education (Afghanistan)

Dr. Harold Matteson, director, Center for International Programs, New Mexico State University

Mr. Lamin O. Jobe, master's canadidate in Civil Engineering, Cornell University (The Gambia)

Discussants: **Mr. John Greisberger**, foreign student adviser, Iowa State University

Dr. Richard Holton, School of Business Administration, University of California, Berkeley

Recorder: **Ms. Suzanne Steadman**, international student adviser, Arizona State University

Introduction

The panel of A.I.D. students and alumni provided a new dimension to the workshop. With that special insight that can be derived only from personal experience, they offered a counterpart to the concerns and observations of the administrators and educators who are responsible for arranging the educational programs of foreign students in U.S. institutions. From their combined experience they gave a comprehensive picture which included the problems particular to their fields of study, to the conditions in their home countries and to their experience in different U.S. institutions.

As may be expected, they reported many similarities in their experience but also some significant differences, as they explored the question of the relevancy of their U.S. education to their professional needs and the needs of their countries.

Bridging the gap

From their personal efforts to acquire a relevant education, the A.I.D. students and alumni described the dimensions of the cultural and educational

barrier that must be overcome by the student from a developing country who comes to study in the United States. To put the U.S. educational experience in its proper setting, it is necessary first to understand the factors and motivations that have shaped the economic and social development in this country. Only then can one fully comprehend the U.S. educational system which is the product of and designed to meet the needs of American society.

For many foreign students the view of life and study in the United States is clouded by the misconceptions that they bring with them from their homelands. There can be a wide discrepancy between expectation, which too frequently assumes that within the United States lies the panacea for all the problems of the student from a developing country, and the reality, which reveals the incongruencies between the offerings of U.S. education and the needs to be met upon return home. Although many foreign students may be acutely aware of the differences between the United States and their home country, awareness in itself is not sufficient; there must also be an understanding of the reasons for the difference. To this end, it is also necessary that foreign students have a good knowledge and appreciation of the home country, its culture, and the needs and problems that exist in its economic and social development, identifying the "missing link" between their country and the United States and thus providing the basis for a valid comparison of the experience awaiting them in this country and that which they have encountered in the homeland. For some this may be difficult in that higher education itself is a new experience, not only for them but also for their families, theirs being the first generation to have ever attended a college or university. In these circumstances there was general agreement on the importance of careful selection and of adequate preparation and orientation prior to embarking on an educational program in the United States, both before leaving the homeland and, on arrival in the U.S., before beginning the course of study. From the available experience it would appear that the best candidate for an educational program in the United States is a graduate student who has had some work experience in the home country.

Educational experience

In evaluating the educational experience in the United States it was recognized that, for the optimum results, the foreign student must have a clear understanding both of the purposes of the program which has brought him to this country and of his own personal goals. These goals and purposes may be compatible but are not necessarily so. With their objectives firmly in mind, foreign students will find a number of positive aspects in the U.S. educational program. It was noted that the foreign student can confidently look to the wide variety of offerings in many U.S. academic programs to meet both personal goals and national needs; that the problem of coping with the demands of the U.S. academic system is eased by the advanced techniques, ample facilities and the liberal approach which are characteristic of most institutions; and that U.S. education offers the basic instruction and the groundwork of well tested principles from which to make correct decisions and find solutions to problems. It is, however, in the application of the knowledge gained to the situations to be faced in the home country that inadequacies are apparent. Most obvious is the need for practical experience. This essential element provides the self confidence

needed to act independently and to fulfill the role of "innovator" which is frequently the task of the student returning from study in the United States.

Seeking relevance

Most foreign students from developing countries are acutely aware of the inevitable national bias of the education provided in the United State. It is, as they view this against knowledge of what lies ahead upon their return home, that the question of relevancy acquires a special urgency. Its presence, or absence, can have an important influence on their motivation as they pursue their studies. Relevancy in the education of the foreign students from developing countries includes learning how to cope with research, to identify and analyze problems, to discover practical applications, and requires a concentration on those aspects of instruction which are applicable, usable, and acceptable in the home country. To do this within the time span available for study in the United States, the student must be able to eliminate time spent on those topics which may have no relevancy either to the cultural background or background on the physical characteristics of the homeland and are not essential parts of the curriculum.

It was emphasized, however, that the question of relevance does not imply inappropriate or misplaced instruction in formal educational programs. It may be more correctly defined as relating to those elements in an educational program which will make the student a more constructive and innovative person, capable of dealing with such problems as the lack of infrastructure, which may inhibit adequate performance in the home country, and providing a preparation broad enough to encompass jobs at any level of professional activity. Thus, the program should provide an experience which is both academic and practical, including interaction with U.S. students on research projects, work on problems related to the home country, and involvement in extension services.

Re-entry

A number of factors were noted that may affect the success of the student upon return to the home country. It was recognized that many foreign students will not return home to assume immediately some major responsibility, but may take on some task at a relatively junior level. Their experience may be complicated by a number of factors. They may well be expected to create the conditions required to carry out their work; they may lack the guidance of seniors in their profession who are completely engaged, not in professional activity, but in administrative responsibility; they may be working on a project that is operated by an expatriate company that provides little time or opportunity for on-the-job training; they may find that they are, at first, relegated to less important tasks while all the work for which they have been trained, or to which they aspire, such as planning, feasibility analysis, design, etc. is being done in company headquarters; or they may find themselves assigned to some administrative task for which they have received little or no specific training. An awareness of this catalogue of future possibilities underscores the need for a great deal of flexibility in the education provided in the United States.

Evaluation and counseling

Because of the immense changes which the foreign student must face in the process of acquiring an education in the United States, the members of

the panel identified a number of aids and check-points which should be included in an academic program. There is a need for continuing evaluation, before the program begins, while it is taking place, and upon completion. Coupled with evaluation is the need for orientation. This should be provided prior to departure from the home country, to clarify opportunities and responsibilities and precisely identify the appropriate educational program; after arrival in the United States, to assist the foreign student in presenting his particular needs to the faculty; and upon return home, to assist the foreign student in making the best use of the education received in the United States.

It was noted that foreign students who are properly oriented and sufficently aggressive can find their way through the irrelevancies of the U.S. educational program and acquire the education that fulfills their particular needs. Unfortunately however, if left to fend for themselves, the achievement of this ability may come too late in the educational program to be really valuable. There was, therefore, unanimous agreement on the importance of adequate and experienced counseling to enable the foreign student to challenge what seems irrelevant, to assess needs to be met in the home country, and seek research projects or other experiences related to those needs, to learn from the experiences of others, and to learn how to "make the system work for him." It was suggested that such sophisticated counseling is more likely to be available at a large institution.

Such counseling must make the foreign students aware of the full range of opportunities available to them, through practical training, extra curricular activities, and informal contacts among both the faculty and the U.S. students on campus.

Institutional response and restraints

In reviewing the needs and problems as described by the A.I.D. students and alumni, it was noted that the institution's capability to respond to these needs must be subject to certain restraints.

Clearly the primary responsibility of the American college or university is to meet the needs of American students, a requirement that is even more strictly defined in those institutions which are supported by state funds. In these circumstances the cost of making special arrangements or adjustments to meet the needs of foreign students is an important factor. It is seen as a concern of the federal rather than the state authorities, and is very difficult to justify at the state level, especially in these times of reduced funding, when every cost item is subject to careful scrutiny. Questions now raised relate not to the approval of additional expenses, but to the adequacy of tuition fees paid by foreign students in meeting the basic cost of education.

It was also noted that many faculty members are not trained teachers and are often ill-prepared to communicate across the cultural barriers that separate them from the foreign student. Lack of intercultural or international experience may often mean that faculty do not understand or appreciate the importance of applicability as it relates to the educational program offered the foreign student.

Despite these drawbacks, however, is was noted that there are many ways in which the institution can respond to the problems described by the panelists.

Commitment to the concept of international education does not, of itself, involve any cost factor. Once such a commitment is recognized by the institution, it provides a legitimate authority for the institutionalization of the international element in the educational program, opening the way to recognition of this area in the rewards system of the institution. The end result of such an approach can be an increase in the number of faculty who are engaged in international activities, and thus, through experience acquire the cultural awareness required to provide expert assistance to the foreign students.

There was further recognition of the critical importance of adequate and experienced advising for foreign students as one of the major contributions the institutions can make to the success of their educational program.

Reference also was made to the importance of maintaining contacts with home country, both during and after the period of study in the United States. Although it was suggested that such home country contact during this period may be difficult to maintain, it is important in that it can help the students keep the U.S. educational experience in proper perspective in relation to the goals and purposes which brought them to this country.

It also was reported that relationships with the home country can be developed and refreshed through continuing contact between the various departments and the alumni who have returned home, through contacts between faculty who are planning a visit abroad and the students at the institution from the countries to be visited, and through introducing former foreign students who have returned to the United States to their fellow countrymen now on campus.

Plenary: *A.I.D. discusses its plans and priorities.*

Speaker: **Mr. Sander Levin**, assistant administrator, Development Support, A.I.D.

Recorder: **Dr. Joseph Williams**, director, International Student Affairs, State University of New York, Buffalo

Introduction

The Participant Training Program and the activities of the Office of International Training are essential elements in the operation of the Agency for International Development. They are instruments for the implementation of the agency's programs for economic and social development with the various cooperating countries. Within this framework they are guided by the commitments of the agency and are governed by the limits of the agency's financial resources.

Budget

At this time in the current fiscal year, the Agency for International Development is still operating on a "continuing resolution" which restricts use of funds to the limitations of the budget approved for the previous year. This may be seen as one consequence of the economic climate in the United States and the general concern over government spending. Because of the impact of inflation, especially in such items as travel, the effect is that operations have been constricted and there has been some diminishment in the momentum of the agency's program. Such constraints present a special problem for a development agency which, by definition, is involved in the promotion of change and must therefore be able to adjust to new situations and respond to new opportunities.

Participant training

The Participant Training Program continues to enjoy a high priority in A.I.D. activities. Although there have been a number of modifications in facilities and procedures, including reductions in staff, both in Washington, D.C., and abroad, these may be seen as adjustments to changing conditions rather than a lessening in the commitment to the concept of training for development. Thus the reduction in the number of training officers overseas, although influenced to some extent by budgetary considerations, is also part of a deliberate policy to diminish the U.S. presence abroad and, of course, reflects the elimination of the program in Viet Nam which, at its peak, involved large numbers of U.S. and local staff. The reduction of staff in Washington, D.C., has been partly offset by contracting out a number of services which were previously the direct responsibility of the Office of International Training.

Other changes involve a greater emphasis on short-term training programs. In summary, however, it is believed that the benefits of participant training more than justify the investment required, and its value is apparent in the goodwill and commitment to the democratic process of many former A.I.D. participants. One of the agency's greatest strengths is its solid corps of trained technicians in the United States and abroad.

Future trends

In its training programs A.I.D. strives to keep abreast of current developments and, in anticipating and responding to crucial issues, may move faster than the educational institutions with which it cooperates. Thus the agency is currently sponsoring research in energy-related fields. It also has been experimenting with alternatives to its direct support activities, as for example with the reimbursement training program arranged with the government of Nigeria. This is now being reviewed to determine the possibilities for future growth in such programs. It may be said that, both in its overseas activities and in its relationships with U.S. colleges and universities, A.I.D. sees a continuation of the partnership in international development.

Administrative support

The current administration considers that the relationship between the "haves" and the "have-nots" in the world is of vital importance. Thus, in the long run increased attention will need to be given by this country to the lesser developed countries. It is hoped and expected that this administration will have a continuing commitment to this national concern, and it is this conviction which underlies the policy and planning of the Agency for International Development.

Panel IV: *The A.I.D. student from selection to re-entry: Factors affecting success.*

Moderator:	**Dr. Meredith Minkler**, School of Public Health, University of California, Berkeley
Panelist:	**Dr. Willis Griffin**, director, Office for International Programs, University of Kentucky
	Dr. William Bennett, associate dean for resident instruction, College of Agriculture, Texas Tech University
	Mr. Thomas Ball, chief, Program Division, Office of International Training, A.I.D.
	Ms. Hattie Jarmon, education specialist, Office of International Training, A.I.D.
	Ms. Mary Ann G. Hood, acting director, The English Language Institute, The American University
Discussants:	**Mr. Kenneth Rogers**, director, International Services, Indiana University
	Ms. Marilyn Habedi, bachelor's candidate in Home Economics, Tuskegee Institute (Swaziland)
Recorder:	**Mr. Ted Dieffenbacher**, director, International Student Office, Boston University

Introduction

The objectives of the U.S. Participant Training Program of A.I.D. are (1) the improvement of the technical and productive capabilities of the participants through the acquisition of new technical knowledge and skills; (2) the broadening of the outlook of participants through exposure to change and modernization, (3) and the achievement of a better understanding of the United States, its people and way of life. Within this context and against the broader background of educational goals and institutional commitment, the panel reviewed the training process and the factors affecting the success of A.I.D. students from the time of selection to re-entry to the home country. In summary, it may be said that the focus of concern of the administrators, faculty, and advisers who are involved in the program is to ensure that the right student is sent to the right institution for the right education. From their combined experience they identified those items which either help or hinder the success of the training program and made a number of recommendations for changes that would improve the programs. The comments and suggestions of the panel members and the consequent discussion are presented within the

framework of the training process arranged by A.I.D. for the academic participant in the training program.

Purpose

The basis for the training of a participant is the social development program formulated by the cooperating country with the assistance of the A.I.D. mission. The position the participant holds is keyed to this program.

Selection of participant

The participant is selected by the officials of the home country government in consultation with the A.I.D. Mission. Prime requisites in the selection process are leadership potential, educational qualifications, current position, English language proficiency, security, and physical fitness. Acceptance by the participant involves a commitment to work in a job related to the economic and social development goals of the country upon return to the homeland.

It was recognized that, for the most part, participants must be selected from the elite section of society as, at this time, it is only among this group that one can find persons with the necessary qualifications. Some exceptions to this general rule may be found in the selection of participants in agricultural training programs. While acknowledging this limitation to the outreach of the program, it was noted that those selected from the elite may well have required social sensibility to inspire a commitment to the social and economic development of their home countries. It also was noted that selection for such special opportunities is a matter of some sensitivity in which too much interference by outsiders may be a cause for resentment.

In discussing ways to meet the need for a greater outreach, it was suggested that selection be made at an earlier stage in the educational process, although clearly this would require some longer term projections of future training needs. It also was suggested that former participants in the training program might be used to identify potential trainees. In general it was agreed that if the goal of A.I.D. is to reach the "poorest of the poor," some method needs to be designed to make the training programs accessible to representatives from this group. Looking to the future, it was suggested that the possible emergence of a new development style (as described earlier in the workshop) would, of necessity, involve a much greater participation in development training programs by all sections of society.

Implementation

The first step in the implementation of the training program is the completion of a Project Implementation Order/Participant—the PIO/P. This is a key document in the clarification of the purposes of the individual participant's training program and is an essential element in the mutal understanding of the program by all parties—the home country, the sponsor, the U.S. educational institution, and the participant. The PIO/P includes a full description of the type and duration of training, the finanacial arrangements, the level of education required, and the major field of study. Together with the participant's bio-data, transcripts of academic record, and other relevant documents, it comprises the dossier which is sent to the Office of International Training in Washington, D.C. Special emphasis was given to the crucial importance of the PIO/P as the means by which the sponsor's goals will be

clearly communicated to the institution where the student/participant will be enrolled. It provides the basis for planning the educational program for the participant, and it must be specific in requesting those program elements which may require variation in and/or supplementation to the standard degree requirements, such as greater breadth of study and less specialization, interdisciplinary research experience, internship and other practical experience, dissertation or thesis research on a home-country problem, and complementary courses on such subjects as socioeconomic development planning, and management. Also, it should be supplemented by additional information (more than is currently offered) to enable the U.S. educational institution to understand more clearly the needs of the developing country. It also was recommended that the distribution of the PIO/P be extended to include the foreign student adviser and any other who may be directly involved in the training program.

Management

The responsibility for the programming function of the particular training project is assigned by the Office of International Training (OIT) either to a participating federal agency (e.g., U.S. Department of Agriculture) or to a contractor [e.g., Southeast Consortium for International Development, (SECID) or Roy Littlejohn Associates (RLA).] At this time, few academic training programs remain the responsibility of OIT. It was reported that the use of contractors for the management of the training program is a relatively recent development, designed to reduce the work load of OIT, but is was noted that final responsibility for the training project remains with A.I.D. which retains the visa sponsorship for the participant and is accountable for the successful use of funds made available for the training program. Thus, the Office of International Training seeks to maintain contact with the foreign student adviser and others on campus who are directly involved with the participant. In this respect there was some discussion as to who has the primary on-site responsibility for monitoring the progress of the participant in fulfilling the goals of the sponsor. It was noted that the foreign student adviser plays an important role in this matter, underscoring the need for adequate communication between the foreign student adviser and the sponsoring agency.

Selection of institution

As part of the A.I.D. organization of the training process, in the case of academic participants, the A.I.D. mission in the home country often may make recommendations on the institution to be attended. Subsequently in Washington, D.C., OIT academic advisory staff, together with the credentials analyst from the American Association of Collegiate Registars and Admissions Officers, evaluate the participant's dossier and make recommendations concerning level of placement in a U.S. university or college. The final decision to admit the participant is the prerogative of the educational institution.

In this critical decision in the development of the training program, it was suggested that A.I.D. should use its influence to ensure that the institution has the resources and is sufficiently knowledgeable in international educational exchange activities to respond effectively to the needs of a student from a developing country. It was recommended that placement of trainees be conditional on this capability. At the same time it was suggested that a

discriminating use of grant funds might be made to assist these intitutions in developing facilities required to meet special needs, and take care of special costs, such as those involved in home country research and in the development of complementary curricula.

Because different institutions may have different characteristics, it was recommended that A.I.D./OIT members responsible for the training program make themselves familiar with the resources of the different institutions and, further, that they keep this information up-to-date with the changes in institutional programs and curricula. It was further suggested that consideration be given to the advantage of sending a sufficient number of participants to one institution to form a critical mass that would justify the special efforts that the institution must make to meet the needs of students from developing countries. In this way A.I.D. also could encourage the initiation of changes that might be needed in the educational programs offered to such students.

An appropriate environment was considered essential. This would include a physical location with similar characteristics to that of the home country, a factor which is particularly important for the students in agricultural fields. Also important is a friendly atmosphere on campus, including sympathetic faculty, concerned advisers and a reasonably understanding student body. It was noted that lack of understanding by U.S. students is due to an almost universal ignorance about foreign countries in general and about the developing countries in particular. This ignorance is apparent in the kind of questions often asked of the foreign students and it was recommended that U.S. students be involved in summer programs and other special activities for the participants, thus giving these students the opportunity to learn about the participants' home countries while enhancing the participants knowledge of the United States and its people.

Reception and orientation

Once the programming arrangements have been made and the institution selected, the participant is brought to the United States on what is known as a "Call Forward."

The journey begins with pre-departure orientation in the home country, an extremely important part of the preparation for study in the United States. On arrival at the port of entry, the participant is met by a staff member of the local reception center, helped through customs and assisted on the journey to Washington, D.C. (or directly to the training site). On arrival in Washington, D.C., the participant is met and taken to a hotel by a volunteer from the Washington International Center. During the following week there is a briefing, introduction to OIT, and a one-week orientation on the United States at the Washington International Center.

In discussing this phase of the program, much attention was paid to the importance of adequate orientation, focusing mainly on that provided in the initial period at the educational institution where the participant will be enrolled for the course of study. Noting the anxiety of some participants to embark without delay on their academic programs and their consequent reluctance to divert attention to this essential prerequisite, it was recommended that orientation be a required course for which credit could be given, thus giving it more importance in the eyes of the participant.

English language

Those participants who are in need of additional language training will move immediately into one of the intensive English programs.

In this respect there is little difference between the A.I.D. sponsored participant and the non-sponsored student. Both have the same needs—proficiency in English language skills: listening, speaking, reading, and writing. Both face the same problems in developing an accurate perception of the real level of proficiency and the readiness for academic course work. These problems are often complicated by a tendency on the part of student and sponsor to overrate actual proficiency, and by the lack of any certain instrument for determining the true level. While tests may provide some information, they can tell very little about the individual student, thus, while they may serve to prevent unwise decisions, they offer no guarantee of correct decisions. In addition to the problems shared with other foreign students, there are some which are peculiar to the A.I.D. sponsored participants. One relates to a characteristic of this group—the fact that they tend to be older. While this may mean they are more serious in purpose and motivation; it also may mean that they have more difficulty in learning English as a second language. Another special problem relates to the time factor; scholarships granted pending achievement of English language proficiency impose a sense of urgency on the student who is overly conscious of the delay in beginning the course of study for which he has come to the United States. One other problem may become apparent to the teacher during the student's sojourn at the intensive English center. As the one who has the first extended classroom contact with the participants, the ESL teacher is in a position to learn much about their goals and the plans which have been made for the participant's further training. From this vantage point the ESL teacher may realize that, in some cases, the institution chosen for continuing study is not the one best suited to the participant's needs. While conscious of the problems involved in changing plans which require approval from a number of sources, it was felt that more flexibility was needed in dealing with such situations.

It was reported that there are a number of promising developments in the discipline of English as a second language which will contribute more effectively to a successful educational experience for the foreign student. These include the creation of programs designed specifically in relationship to a particular discipline, e.g., "scientific English," "technical English," or "business English." Known as "English for specific purposes," these programs will accelerate the achievement of a proficiency that will enable the students to cope successfully with their academic program. Another approach which, when successfully developed, may greatly assist the foreign student in learning English as a second language is known as the "notional/functional" approach. This, too, is designed for the student who wishes to acquire, as quickly as possible, a proficiency sufficient solely for some specific purpose.

Educational program

Once the participant arrives at the educational institution, the key roles are played by faculty advisers and the foreign student adviser.

In reviewing the resources available to meet the special needs of the participant training program and of the students from developing countries, it

was noted that for the most part the "standard" program offered in U.S. institutions is not appropriate. Special consideration must be given to meet special needs, but it was pointed out that variations in the educational program could not be standardized; they must be designed to take into account country needs and individual requirements. Individual program planning must relate to the student's experience and to the objectives of the training program. To this end, it was recommended that the programs be planned jointly by the faculty, A.I.D. and the participant. It was pointed out that over the years a great deal of sophistication has been acquired by those involved in educational exchanges with the developing countries. This sophistication has been available on many campuses (e.g., through area studies specialists) and the tradition of university, A.I.D., and country relationships provided a sound basis for the further development of relevant educational programs. The importance of practical training was emphasized and it was suggested that this could be provided in a number of ways, by including field trips, contacts with business and industry, etc., which could be arranged throughout the period of study. To ensure that the requirements of each individual program were met as effectively as possible, it was suggested that one person on campus who has had some experience in the developing country be identified who could serve as a consultant for the program.

There was a great deal of support for the concept of complementary curricula, and a number of topics were suggested as appropriate elements for this kind of program. These included U.S. society and education, management training and experience, socio-cultural change, planning innovations, project analysis and evaluation, field trips, and extension programs. It was noted, however, that the idea of complementary curricula should not rule out the immediate value of and the need for modifications in the basic curriculum to provide an educational program appropriate to the goals of the home country, A.I.D. and the individual participant. While acknowledging the validity of all the recommendations for a "well-rounded" educational experience, it was recognized that this will inevitably be limited by the time constraints of the program, a factor which stresses the importance of flexibility in the organization of the participant training program.

Advising

All through the discussions of the educational program there were recurrent references to the compelling need for experienced, sensitive and knowledgeable advising with regard to both the academic progress and the personal welfare of the participant. Cultural habits, academic tradition and the educational patterns of the home country are significant hurdles to be overcome by the foreign student who is expected to be aggressive in articulating educational goals, or to cope with such new demands as multiple choice or objective tests. It is in dealing with these and with the many personal problems of cultural adjustment that the help of a competent adviser may make the difference between success and failure.

It was noted with some regret that it is not usual for the foreign student adviser to be working in close cooperation with the faculty or academic adviser, and it was urged that foreign student advisers be encouraged to play a more important role in academic affairs. It was reported that on some campuses, in-

cluding a number of major institutions, the foreign student adviser's office does serve as the focal point for the mobilization of resources, both in the faculty and in the community, to provide a comprehensive advisory service for the foreign student population. Such examples indicate that the foreign student adviser can and should be more assertive.

Re-entry

The last stage in the U.S. experience of the A.I.D. participant begins with the return to the homeland. The immense cost of the home country economic development plan and of all the previous stages of the participant's training program calls for some measure of protection for this investment. For this reason it was strongly recommended that the advice and assistance at this crucial point which is provided in the form of re-entry adjustment and orientation programs be further developed and increased. It was again suggested that such a re-entry program be a required course for which credit is given.

Finally it was recognized that, in order for the impact of the U.S. educational experience to be sustained, there must be some element of continuity. It was recommended that contact with the participants in the home country be maintained through alumni programs, newsletters, professional papers and, where appropriate, refresher courses. All these can serve to keep the knowledge and training gained in the United States up-to-date. It was recommended that the whole question of continuing contact be given a high priority in the concerns of all those responsible for the different aspects of the participant training program.

Recommendations

Small group discussions

Facilitators:

Mr. Jerry Wilcox, associate director, International Student Office, Cornell University
Mr. David Horner, assistant director of admissions, Washington State University
Dr. Richard Downie, director, International Services, University of Florida
Ms. Jackie Behrens, director, Office of International Programs, Texas Tech University
Ms. Jill Stritter, director, International Center, University of North Carolina
Dr. Preston Stegenga, director, International Center, California State University, Sacramento
Dr. Robert Knudsen, coordinator, International Student Office, California State University, Fresno
Dr. Bernard LaBerge, director, International Student Services, Virginia Polytechnic Institute and State University
Dr. Harold Matteson, director, Center for International Programs, New Mexico State University
Dr. Allen Brettell, foreign student adviser, Kansas State University

The following recommendations were offered by the various discussion groups at the close of the workshop. They are not presented in any order of priority, but have been collected into categories as they relate to different aspects of the educational programs for students from developing countries. It should be noted that the inclusion of a recommendation does not indicate a lack of knowledge about what is being done at this time, but rather is an affirmation of the importance of a particular aspect of the educational activity.

As will be apparent, the workshop participants identified a number of ways in which the educational programs could be made more relevant to the goals and purposes of the students, their sponsors and their home countries. It was felt, however, that while more fundamental changes in the whole process of development over the next decade might require new approaches to the training and education provided for students from the developing countries, a more immediate relevancy could be obtained by some significant adjustment

Note: The term "foreign student" or "student" is used to identify students from developing countries in general and A.I.D. participants in particular.

and supplementation rather than by basic changes in the curricula offered by U.S. colleges and universities.

A. *Selection/preparation*

1. Accommodate reasonable demands for relevance, especially at the graduate level.
2. Give careful consideration to the long-range home country development plan in selection of participants.
3. Involve former A.I.D. participants in recruitment and orientation of trainees.
4. Involve U.S.I.C.A. Fulbright Commissions and overseas officers of organizations such as IIE in selection and pre-departure orientation of trainees.
5. Improve orientation programs in the home country, including examination of national, professional and personal goals in relation to the opportunities and resources in the U.S.
6. Provide students with more information about curricula offered in the U.S.; seek assistance of professional societies in developing more specific information concerning educational programs at U.S. institutions.
7. Make sure the PIO/P specifies those desired elements in the participant's study program which assure greater relevance to home country needs and may require variation in and/or supplementation to standard U.S. degree requirements.

B. *Educational programs*

General

1. Accommodate reasonable demands for relevance, especially at the graduate level.
2. Encourage academic departments to experiment with complementary and innovative curricula, both formal and informal.
3. Encourage enrollment in *existing* courses within curriculum that are most appropriate for student's needs.
4. Require a first term orientation course for foreign students for which credit could be earned.
5. Urge experimentation with new academic programs that stress the value of internationalization of curricula for *both* U.S. and foreign students (and involve both students and faculty in planning).
6. Encourage involvement of foreign students in extra-curricular experiences during their study in the U.S.
7. Provide training for the leadership role students will assume upon return to their home country.
8. Develop inter-disciplinary seminars to address special needs and interests.
9. Provide management training programs.
10. Encourage foreign students to bring to the U.S. projects that they may be working on in their home country.
11. Develop "practical" courses which would enable students to analyze and solve problems more effectively.

12. Stress the practical aspects of a student's academic curriculum and program, particularly encouraging students to take full advantage of courses which involve applied field experience, practical training and relevant research projects and theses.
13. Provide grants for students to obtain practical training both in the U.S. and abroad.
14. Encourage the foreign student adviser to develop active and continuing relationships with the academic advisers.

Institutional

1. Encourage development of institutional policy on international educational interchange.
2. Encourage development of a "campus team" or committee, which would bring together all those at the institution who have some functional responsibility related to international education, to review institutional goals, policies and procedures.
3. Encourage international inter-institutional relationships involving faculty and students.
4. Encourage opportunities in international education and research projects for young faculty members.
5. Use already established overseas programs to expand the international awareness and outreach on campus (e.g alumni activities abroad, university contacts abroad, etc.).

C. *Home country*

1. Improve educational opportunities in the home country to minimize the need for extended periods of training in the U.S.
2. Explore possibilities for training programs and opportunities within the home country.
3. Encourage closer contact between authorities in the home country and the U.S. higher education community, with the aim of providing exchange information on immediate and long-term manpower needs, thus identifiying areas where training is urgently needed.
4. Encourage institutions and ministries in the home country to provide information to their students in the U.S. concerning current economic, educational, and political developments in the home country.

D. *Sponsoring agencies*

1. Encourage A.I.D. and other sponsors to become more familiar with both the special programs available for students from developing countries in different U.S. institutions and the availability of faculty with overseas experience.
2. Encourage A.I.D. and other sponsors to provide "memoranda of understanding" regarding course of studies for A.I.D. participants and other sponsored students.
3. Provide more specific information on PIO/P to clarify the contract with the institution. To meet individual as well as home country needs, the PIO/P (memorandum outlining academic objectives of students) should be more flexible and subject to amendment or revision if necessary.

4. Share the PIO/P with all those on campus involved in the students training program (e.g. the faculty, foreign student adviser, consortium representative, etc.).

E. *Advising and related services*

1. Encourage maximum effort on the part of U.S. college and university campuses to disseminate information regarding the sponsor's goals to all persons on campus who are involved with A.I.D. participants (e.g. foreign student admissions officer, foreign student adviser, faculty adviser, etc.) (See recommendations 1-4 above in Sponsoring agencies section.)
2. Encourage universities and colleges to take the initiative in keeping A.I.D. informed about new course offerings.
3. Assist foreign students in locating appropriate academic programs in areas environmentally similar to the home country (especially in agricultural training programs.)
4. Encourage initiative and self-reliance of trainees, both with regard to their study in the U.S. and after they return home.
5. Encourage advising of foreign students to be "culture specific" —some cultures, as well as some individuals, need more help in adjusting to their U.S. experience.
6. Increase adviser's awareness of responsibilities for assisting foreign students regarding degree requirements, financial and social problems.
7. Encourage close relationships between faculty and foreign students.
8. Encourage reciprocity between U.S. and foreign students through exchange of cultural experience and outlook.
9. Develop orientation programs at the *departmental* level, involving faculty and older students.
10. Explain academic options and identify research offerings in the initial planning interview with the foreign student.
11. Arrange continuing communication with the home country—i.e. foreign students should receive professional/technical newsletters/journals from their home countries while studying in the U.S.
12. Plan pre-departure, transition, re-entry and management workshops to assist in re-adjustment and use of knowledge gained.
13. Give special consideration to formalizing the conclusion of the student's program in the U.S. by initiating terminal interviews, etc.

F. *Resources*

1. Identify faculty who have international expertise, experience in other countries, and who would be willing to assist in:
   —advising and planning curricula,
   —assisting students in identifying needs and goals
   —communicating needs and goals to academic departments,
   —increasing total awareness, in faculty and administration, of special needs of foreign students.
2. Involve senior U.S. and foreign students in advising and assisting new foreign students and in planning curriculum.
3. Hire more faculty from the Third World.

4. Engage foreign students as resources for each other; encourage the sharing of ideas and solutions in questions of national development.
5. Involve foreign students in programs designed to provide information to and increase the international awareness of U.S. students.
6. Mobilize voluntary services to assist spouses in English language programs and advising services.

G. *Follow-up/post return*

1. Provide continuing education programs such as short courses in special areas of interest, periodicals and up-to-date professional information.
2. Encourage development of alumni groups of students trained in U.S. possibly providing the nucleus for home country professional associations (e.g. in engineering, agriculture, administration, etc.). Use such groups to assist students' adjustment upon their return to the home country.
3. Provide overseas workshops in management training.
4. Encourage research on long-range effects of U.S. education of foreign students from developing countries.

Appendices

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Suggested Readings I: *International educational exchange*

List A: All or most of the following should be available in your library.

Board on Science and Technology for International Development, Commission on International Relations, National Research Council. *The Role of U.S. Engineering Schools in Development Assistance.* Washington, D.C.: National Academy of Sciences—National Academy of Engineering, 1976.

This brief report summarizes the major conclusions and opinions of a panel of engineers convened to consider these questions, among others: (a) Should/can U.S. engineering curricula be modified to accommodate increasing numbers of students from LDC's? (b) How do changing theories of economic development affect engineering education? (c) How can U.S. engineering schools better meet the needs of LDC's? Though most of the questions posed in the introduction are more or less answered, the reader (at least, the non-engineer reader) is left with the impression that, on the whole, engineering educators are fairly comfortable in their feeling that they/their institutions are doing all they can for economic development and foreign students. Still, a number of recommendations, particularly those having to do with regional education centers and cooperative work-study programs for foreign engineering students, do indicate genuine concern for Third World students and the problems they encounter in seeking an education in the U.S.

Eisemon, Thomas. "Emerging Scientific Communities: What Role Does Counterpart Training Play?" *International Development Review,* vol. XIX, No. 2 (1977).

This article reviews the impact that the training of foreign scientists and students in scientific programs by developed countries has on scientific work in the Third World. The impact of foreign assistance on Third World scientific communities depends on many factors, including the size, scope, duration, coordination, and degree of follow-through of assistance programs. Equally important are the characteristics of the recipient scientific communities: their size, stage of development, scientific priorities, etc. Counterpart training by scientists from the industrialized countries is an important part of foreign assistance because more and more LDCs are concerned with post-graduate training for their science students. Counterpart training has particular significance at the research level where the conveyance of research norms and skills is, of course, an explicit objective of study abroad. It may also be instrumental in transmitting certain principles regarding appropriate subjects for scientific inquiry and organizing research.

Fienup, Darrell F. "Institutional Roles and Training Issues in International Agricultural Development." *American Journal of Agricultural Economics,* vol. 56, no. 5 (Dec. 1974), 1182-1190. (Proceedings of the 1974 AAEA Conference.)

This paper examines the changing roles and the relative strengths and limitations of foreign and U.S. institutions in formal degree and non-

degree training in agricultural economics. Subsidiary concerns are how U.S. institutions can strengthen graduate training for LDC students and relationships between U.S. and LDC universities, as well as international research and training centers vis-a-vis degree and non-degree training. Fienup argues that LDC students need additional kinds of tools/experiences in their formal training if they are to fully utilize their U.S. education. He further argues that at least some graduate research should be done in the home country, under the guidance of an experienced researcher/faculty person or professional. Fienup also says that ultimately more M.S. level work should be done in the home country, but that may not be possible until broader and better institutions are available in LDC's. Consistent post-doctoral contact and support are also needed—he calls it professional interchange. Fienup describes the array of problems that face educational development (ag. econ.) in LDCs and states that non-degree training may provide some solutions (short-term courses, workshops, in-country conferences, in-service training, etc.) The emergence of training and research networks are also seen as constructive answers to many of the problems facing LDC's (re: development of an agricultural economics profession in LDCs). In spite of the fact that this paper was written in 1974, it is remarkable for its overview of problems in this particular discipline. It is well worth reading and pondering.

Glaser, William A. *The Brain Drain: Emigration and Return.* (UNITAR Research Report No. 22.) Oxford, England: Pergamon Press, 1978.

Glaser's study is essentially a progress report on an on-going survey of "brain drain" or emigration and return among professional persons from developing countries who have studied abroad. Glaser summarizes the major findings of a series of surveys/studies, focusing on such factors as the decision to study abroad, ties with home, motivations and experiences which influence the decision to remain abroad or return home. Of particular significance are Glaser's discussions of those who plan intentionally to work abroad before they return home, and the conclusions and recommendations he draws therefrom. Though this study was published in 1978, it should be noted that the surveys on which Glaser bases his report were carried out primarily in the mid-'70s. Nevertheless, this is probably the best and broadest information currently available on the problem of "brain drain."

Markson, C.J. "What Do Foreign Graduates Think About Their U.S. Degree Programs?" *Engineering Education,* vol. 66 (May 1976), 830-831.

This study was designed to find out what effect graduate study at Michigan State's Department of Agricultural Engineering had on its foreign students. They were sent questionnaires asking them what they were doing after they returned home, how they felt about their U.S. graduate study experience, what they felt were the advantages and disadvantages of doing thesis work in their own countries, etc. The results showed that only three students found his/her training irrelevant or unnecessary for his/her current position, and over 40 percent wanted assistance to return to the U.S. on a short-term basis for further training ses-

sions to keep abreast of new developments in technology. Finally, nearly all expressed an urgent need for training programs in their own countries to improve and broaden their expertise.

Morgan, Robert P. *Science and Technology for Development: The Role of U.S. Universities.* (Pergamon Policy Studies, No. 38) New York: Pergamon Press, 1979.

The primary purpose of this study, undertaken by Morgan and several colleagues in preparation for the U.N. Conference on Science and Technology, was to review the role of U.S. universities and colleges "in helping to build an indigenous science and technology (S&T) base in developing countries," particularly in these disciplines: engineering, agriculture, and natural science, both basic and applied. Morgan and his colleagues describe and evaluate a variety of projects/programs undertaken by U.S. institutions of higher education. The study also includes a series of recommendations for future activities both by institutions and by disciplines in the development of science and technology in and for LDC's. While Morgan's study is packed with information, and deserves careful reading by all who are involved in international educational exchange, the last chapter, "Summary, Conclusions, and Recommendations," as well as Appendix A, a summary of a two-day workshop on the project, will provide a solid overview of the major findings/ideas/discussions.

Myer, Richard B., Sessions Chairman, and Mary Louis Taylor, editor. *Curriculum: U.S. Capacities, Developing Countries' Needs.* A Report from the 1979 Conference on International Education, sponsored by the Institute of International Education. New York: Institute of International Education, 1979.

This report on IIE's 1979 conference includes the major addresses, as well as summaries of various panel sessions, reviews of various surveys undertaken in preparation for the conference, and a series of recommendations for future research and follow-up activity. The most significant materials contained in this report are the various surveys. Two of the surveys involve assessment by U.S. Cultural Affairs Officers and by diplomatic representatives from developing countries of the relevance of U.S. education for those countries. Another survey involved LDC alumni of four U.S. universities; various U.S. institutions were also surveyed to ascertain the extent to which there is both concern and appropriate action with respect to the relevance of U.S. curricula for students from developing countries. None of the surveys is definitive; nevertheless, taken as a whole, they do provide considerable information in an area that is of primary importance: education and training for development.

List B: The following may not be readily available; we hope to have some copies on hand for the 4th A.I.D./NAFSA Workshop.

Fienup, Darrell F. and Harold M. Riley. "Training Agricultural Economists to Serve the Needs of a Changing World." Address presented at the conference of International Association of Agricultural Economists, Banff, Canada, September 3-12, 1979.

This paper summarizes the findings of a study undertaken by the International Committee of the American Agricultural Economics Association in 1978: a survey of over 600 agricultural economists who had studied in U.S. universities during the period 1963-1978. Additionally, in-depth surveys were conducted in several countries, and major employers of agricultural economists in LDCs were also interviewed. Major objectives of the study were to assess the worth and relevance of education in the U.S. On the whole, most of those surveyed gave their U.S. experience a positive rating. Like the earlier work by Fienup (1974), this preliminary report of the survey deserves careful reading; it includes a number of worthwhile recommendations as to curricular content, the necessity for experience in LDCs by U.S. faculty, the value of thesis and dissertation research in the home country, etc. (NB: It is expected that a complete report on this AAEA study will be available in the near future.)

Weiler, Hans N. "Discovery and Dependence: The Uneasy Relationship Between American Universities and the Third World." Keynote address prepared for delivery at the Western Regional Conference at the Comparative and International Educational Society, Los Angeles, California, October 19, 1978.

Weiler argues that the relationship which exists between U.S. universities and developing countries is an "uneasy" one, based heavily on dependence and emulation of western techniques, approaches, solutions, many of which are not relevant to the interests and needs of the Third World. He says that U.S. institutions should be working themselves out of the "human resource development" business, and, instead, they should be more actively engaged in training trainers and in building institutions in the developing world.

On the whole, Weiler is quite critical of U.S. colleges and universities vis-a-vis the Third World.

(Annotations by Mary Ann G. Hood and Mary Kay Perkins)

Suggested Readings II: *International development*

Brown, Lester R. *The Twenty-Ninth Day: Accommodating Human Needs and Numbers to the Earth's Resources.* New York: W.W. Norton Company, Inc., 1978.

Erb, Guy F. and Valeriana Kallab. Eds. *Beyond Dependency: The Developing World Speaks Out.* New York: Praeger Publications, 1975.

Goulet, Denis. *The Uncertain Promise: Value Conflicts in Technology Transfer.* New York: IDOC/North America; Washington, D.C.: ODC, 1977.

Jequier, Nicolas, *Appropriate Technology: Problems and Promises.* Stanford, California: Volunteers in Asia.

Lappe, Frances Moore and Joseph Collins. *Food First: Beyond the Myths of Scarcity.* Boston: Houghton-Mifflin, 1977.

Lappe, Frances Moore and Joseph Collins. *World Hunger, Ten Myths.* San Francisco: Institute for Food and Development Policy.

McLaughlin, Martin M. *The U.S. and World Development Agenda 1979.* New York: Praeger Publications, 1979.

Wilber, Charles K. Ed. *Political Economy of Development and Underdevelopment.* New York: Random House, 1979.

Worldwatch Papers. 34 Worldwatch Papers have been published since 1976. They cover a diverse range of topics from energy and population to hunger, national security and the role of women in international development. If they are not available in your library, for a nominal fee, you can purchase them from the Worldwatch Institute, 1776 Massachusetts Ave. NW, Washington, D.C. 202/452-1999.

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